

AMENDMENTS TO THE CLAIMS

Please cancel claims 9-17 and amend claims 18-20 as shown in the following Listing of Claims.

Listing of Claims

Claim 1 (original): A display system comprising:

a base;

an electric motor supported by said base;

a shaft extending from said motor and operable so as to rotate when power is applied to said motor;

an elongated, generally planar display assembly center mounted to said shaft so that said display assembly rotates as said shaft rotates;

a light array mounted to an end portion of said display assembly so as to sweep out a generally cylindrical path as said display assembly rotates;

an elongated, generally planar control assembly fixedly mounted to said base between said motor and said display assembly, said control assembly configured to accommodate said shaft; and

an inductive coupling adapted to provide electrical communications between said control assembly and said display assembly.

Claim 2 (original): The display system according to claim 1 further comprising:

a first switch located on said control assembly configured to transfer power from a power source to said inductive coupling; and

a power block located on said display assembly configured to transfer power from said inductive coupling to said display assembly.

Claim 3 (original): The display system according to claim 2 further comprising:

- a first processor located on said control assembly and operable to generate a plurality of display commands;
- a second switch located on said control assembly and in electrical communications with said first processor, said second switch configured to transfer said display commands to said inductive coupling;
- a second processor located on said display assembly; and
- a data block located on said display assembly configured to transfer said display commands from said inductive coupling to said second processor,

said second processor operable to transfer display data to said light array according to said display commands.

Claim 4 (original): The display system according to claim 3 further comprising a sensor output responsive to a position of said display assembly relative to said control assembly, said first processor in communications with said sensor output so as to generate a trigger command to said second processor, said trigger command incorporating a variable trigger delay, said trigger command indicating the apparent position of a pixel display.

Claim 5 (original): The display system according to claim 4 further comprising a push button switch operable in conjunction with a menu presented on said pixel display so as to set an operational mode.

Claim 6 (original): The display system according to claim 5 further comprising a plurality of display language instructions for display specific tasks, said display language instructions interpreted by said first processor so as to generate said display commands.

Claim 7 (original): The display system according to claim 3 wherein said inductive coupling comprises:

a first inductive coupler mounted on said display assembly concentric with said shaft;
and

a second inductive coupler mounted on said control assembly concentric with said shaft,
said first inductive coupler and said second inductive coupler maintained at a fixed distance
apart.

Claim 8 (original): The display system according to claim 4 wherein said sensor comprises:

a Hall-effect sensor mounted on said control assembly; and
a magnet mounted on a base portion of said shaft so that said magnet repeatedly passes
under said Hall-effect sensor as said shaft rotates.

Claims 9-17 (canceled)

Claim 18 (currently amended): ~~The A display method according to claim 18 comprising the steps of:~~

~~describing a pixel display with a display instruction;~~
~~interpreting said display instruction so as to create a display command;~~
~~generating a data signal responsive to said display command;~~
~~deriving a plurality of column data responsive to said data signal;~~
~~rotating a display assembly about an axis so that a light array mounted on said display assembly sweeps along an arc surface;~~
~~modulating said light array with said column data so as to create a viewable area of said pixel display across at least a portion of said arc surface;~~
~~combining a power source and said data signal into a waveform;~~
~~inductively coupling said waveform to said display assembly;~~
~~filtering display assembly power from said waveform; and~~
~~decoding said data signal from said waveform,~~

wherein said waveform is a square wave, said data signal is a plurality of bits and said combining step comprises the substeps of switching said power source so as to generate said square wave, interrupting said square wave for a first time period in response to each of said bits that is a one, and interrupting said square wave for a second time period in response to each of said bits that is a zero, and

wherein said square wave has a time period of T and said first time period is about $10T$ and said second time period is about $20T$,

said decoding step comprising the substeps of:

generating a zero bit if said square wave ceases for a time period greater than $15T$; and

generating a one bit if said square wave ceases for a time period less than $15T$.

Claim 19 (currently amended): ~~The A display method according to claim 16~~ comprising the further steps of:

describing a pixel display with a display instruction;

interpreting said display instruction so as to create a display command;

generating a data signal responsive to said display command;

deriving a plurality of column data responsive to said data signal;

rotating a display assembly about an axis so that a light array mounted on said display assembly sweeps along an arc surface;

modulating said light array with said column data so as to create a viewable area of said pixel display across at least a portion of said arc surface;

combining a power source and said data signal into a waveform;

inductively coupling said waveform to said display assembly;

filtering display assembly power from said waveform;

decoding said data signal from said waveform;

sensing a trigger position of said display assembly;

adding a variable delay to said trigger position so as to create a virtual trigger position;

initiating said modulating step in response to said virtual trigger position; and

adjusting said variable delay so as to position said viewable area.

Claim 20 (original): The display method according to claim 19 comprising the further steps of:

designating a front position for said pixel display;

calculating said viewable area from a rotational speed of said display assembly and a number of columns of said pixel display; and

determining said variable delay from said viewable area and said trigger position so as to position a center of said viewable area at said front position.